

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – III • EXAMINATION – SUMMER • 2014****Subject code: 730406****Date: 05-06-2014****Subject Name: Peripheral System Design and Interfacing****Time: 02:30 pm - 05:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Enlist and Explain in brief, various Bus System in microcomputers. **07**
(b) Write a note on applications of Buses. **07**
- Q.2** (a) Explain serial communication using null modem and loop back plug. **07**
(b) Explain in detail various GPIB polling methods. **07**
- OR**
- (b) Explain the RS-449 interface. **07**
- Q.3** (a) Discuss RS-232 interface in detail. Explain Virtual Serial port. **07**
(b) Explain USB Interface in detail. **07**
- OR**
- Q.3** (a) Explain the PID controllers in detail. **07**
(b) Explain Programmable Logic Controllers. **07**
- Q.4** (a) Discuss various System development tools and their uses in brief. **07**
(b) Write a note on Automated Test Equipment. **07**
- OR**
- Q.4** (a) Write a note on DMA controller. **07**
(b) Write a note on display devices and explain CRT, LCD, LED displays in detail. **07**
- Q.5** (a) Explain Compilers, interpreters, cross compilers, Simulators and Emulators. **07**
(b) Explain Keyboard interface for a 64 key keyboard with detailed diagram. **07**
- OR**
- Q.5** (a) Explain PC based Data Acquisition System. **07**
(b) Design and Explain the Block diagram of a general purpose Microcontroller based system interfaced with basic I/O ports. **07**
